GARMAN et al. Appl. No. 09/763,825 January 26, 2004

**AMENDMENTS TO THE CLAIMS:** 

This listing of claims will replace all prior versions, and listings, of claims in the

application:

1-5 (cancelled).

6 (previously presented). A microfabricated cell injector comprising an internal

surface defining a conduit for transporting cells suspended in a fluid, the conduit having

an inlet and an outlet, the conduit further comprising a cell injection needle for piercing

cells, such that, in use cells enter the injector via the inlet, are moved along the conduit

and are pierced by the cell injection needle whereupon material is (1) injected into the

cell, (2) extracted from the cell, or (3) injected into the cell and then extracted from the

cell the steps being in any order and any number of times, and the cells are then moved

to the outlet.

7 (currently amended). A microfabricated cell injector as claimed in claim 1 er

claim 6-where the needle is a hollow structure and injection or extraction is actuated by

a cell sensor at an injection area which determines the presence of a cell on or nearby

the needle.

8 (currently amended). A microfabricated cell injector as claimed in claim 1 er

claim 6-which additionally comprises a cell capture sensor at an injection position which

determines the presence of a pierced cell on the injection needle and actuates injection

- 2 -

811389

GARMAN et al. Appl. No. 09/763,825 January 26, 2004

of material into the cell or extraction of material from the cell.

9 (previously presented). A microfabricated cell injector as claimed in claim 8 wherein the cell capture sensor prevents further cells being impelled towards the needle.

10 (previously presented). A microfabricated cell injector as claimed in claim 8 wherein the cell capture sensor actuates the expulsion of the cell from the needle after injection of the material into the cell or extraction of material from the cell.

11 (currently amended). A microfabricated cell injector as claimed in claim 1 or claim 6 wherein the needle is solid and material for injection is present within the fluid suspending the cells.

12 (currently amended). A microfabricated cell injector as claimed in claim 1 or claim 6 wherein the needle is a non-cell piercing hollow structure and cell piercing is achieved by a cell disrupting chemical or force being applied through the end of the non-cell piercing needle structure.

13 (currently amended). A microfabricated device containing a plurality of cell injector units as claimed in claim 1-or-claim 6 wherein the respective inlets and outlets of the cell injecting units being each connected such that the cells are divided into each injector unit and recombined after injection.

GARMAN et al. Appl. No. 09/763,825 January 26, 2004

14 (previously presented). A method for the microinjection of cells which method comprises passing a suspension of cells in a fluid through a conduit, the conduit comprising an inlet and an outlet, the cells entering the conduit via the inlet, the conduit further comprising a cell injection needle, the cells thereby being pierced by the injection needle and material is: (1) injected into the cell (2) extracted from the cell or (3) injected into the cell and then extracted from the cell the steps being in any order and any number of times; as the cells pass through the conduit, and moving the cells to the outlet.

15-17 (cancelled).